

Fig. 2

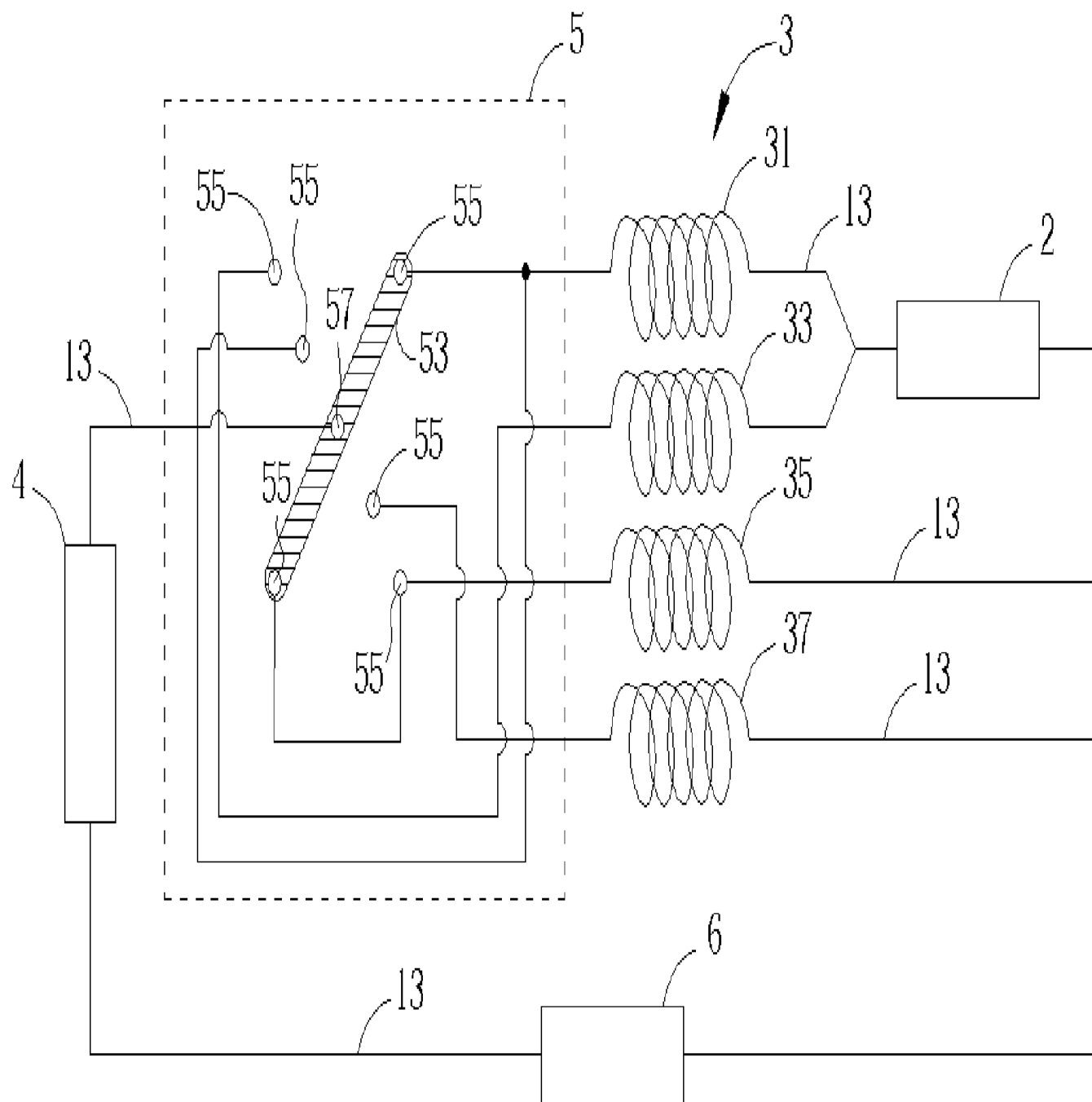


Fig. 3

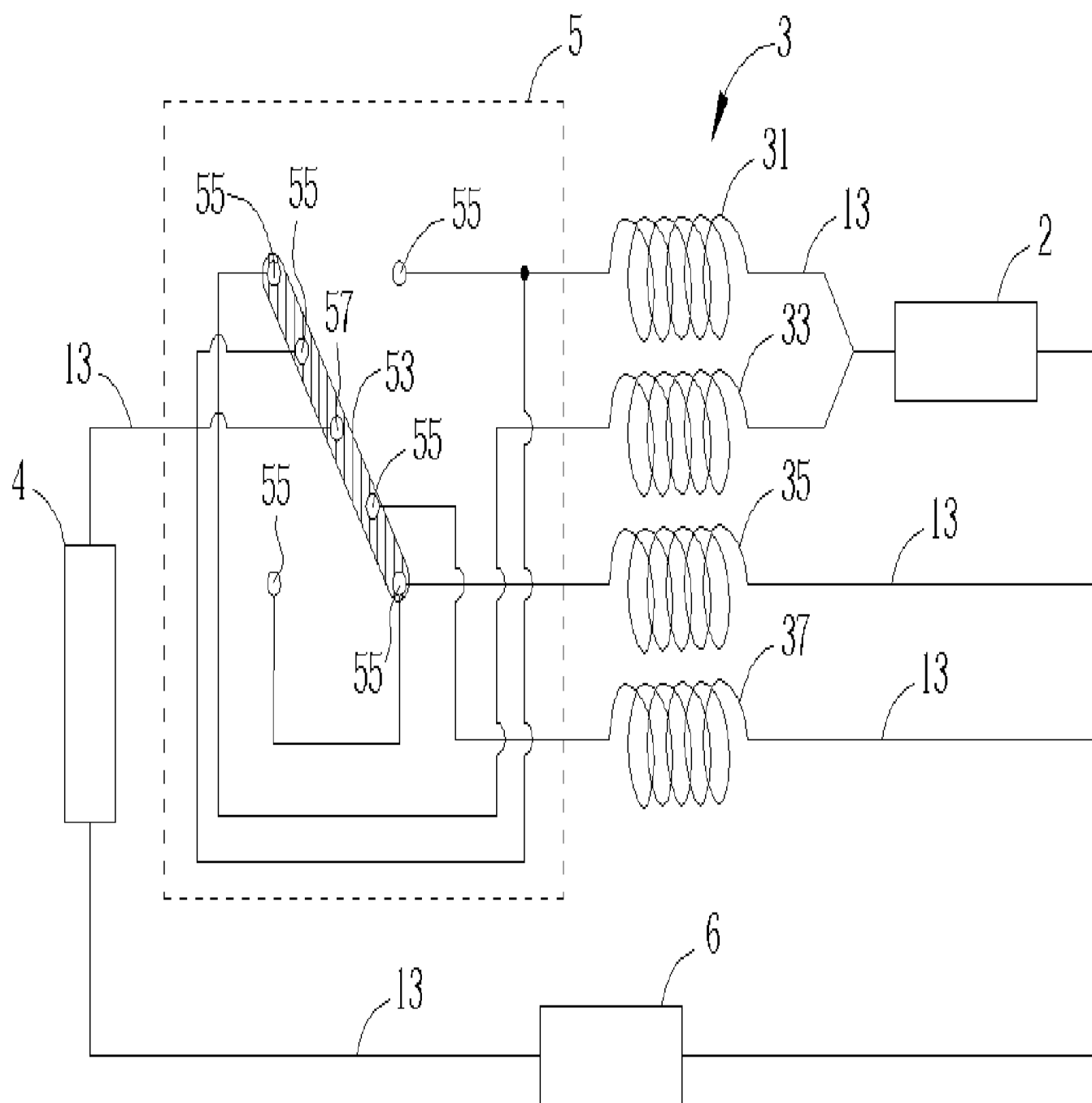


Fig. 4

Type I						
( I -1)	R <sub>M</sub>	R <sub>1</sub>		R <sub>3</sub>		Total
Resistance $\Omega$ =	4.00	4.00		1.00		0.89
Current DC I =	2.00	2.00		16.00		18.00
Voltage DC V =	8.00	8.00		16.00		16.00
Power DC W =	16.00	16.00		256.00		288.00
( I -2)	R <sub>M</sub>	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	Total
Resistance $\Omega'$ =	4.00	4.00	2.86	1.00	1.00	0.46
Current DC I' =	2.82	1.18	1.64	16.00	16.00	34.82
Voltage DC V' =	11.29	4.71	4.71	16.00	16.00	16.00
Power DC W' =	32.00	5.55	7.76	256.00	256.00	557.31
W' <sub>M</sub> /W <sub>M</sub> =32.00/16.00=2						
W' <sub>Total</sub> /W <sub>Total</sub> =557.31/288.00=1.94						

Fig. 5

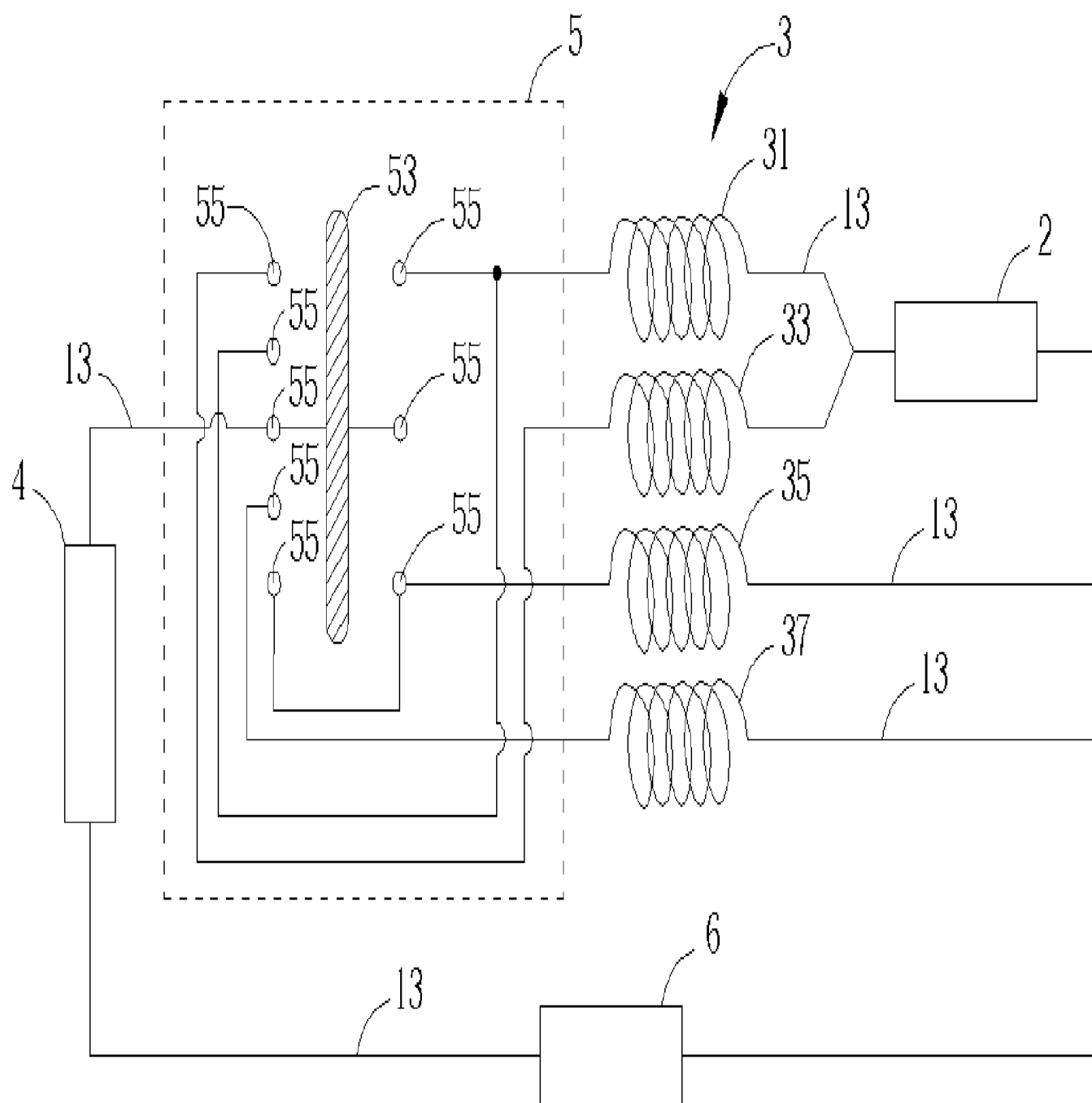


Fig. 6

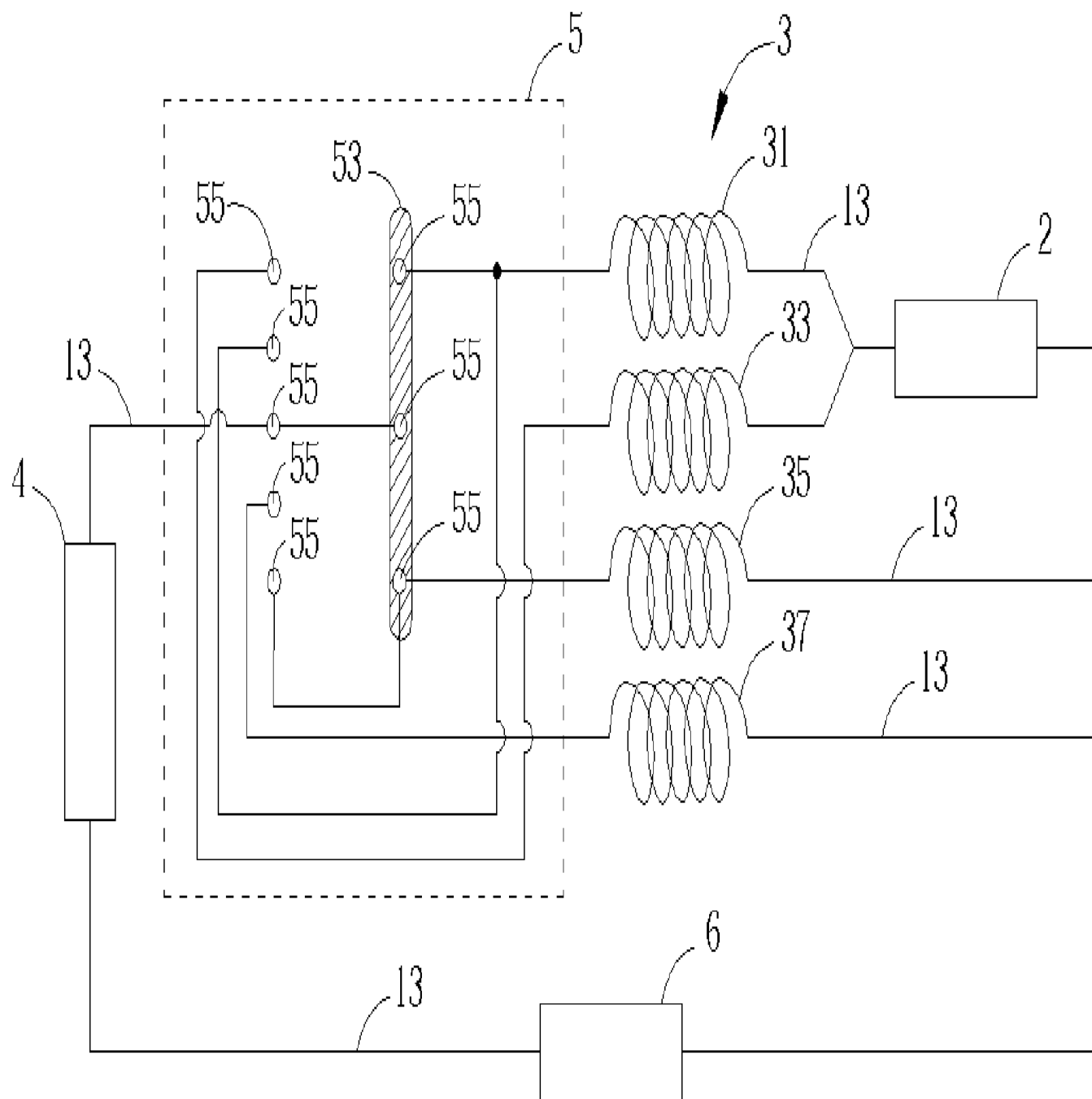


Fig. 7

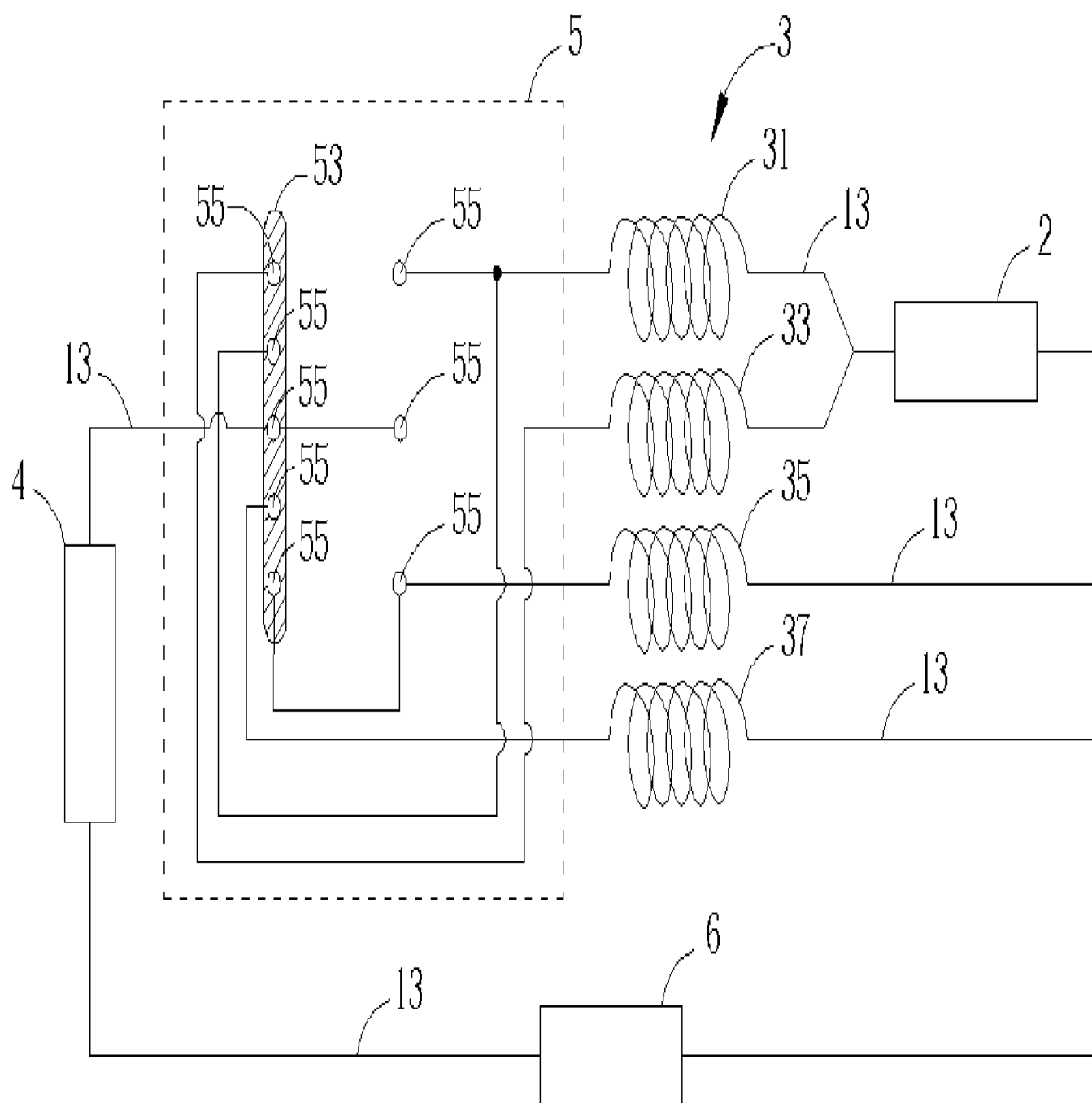


Fig. 8



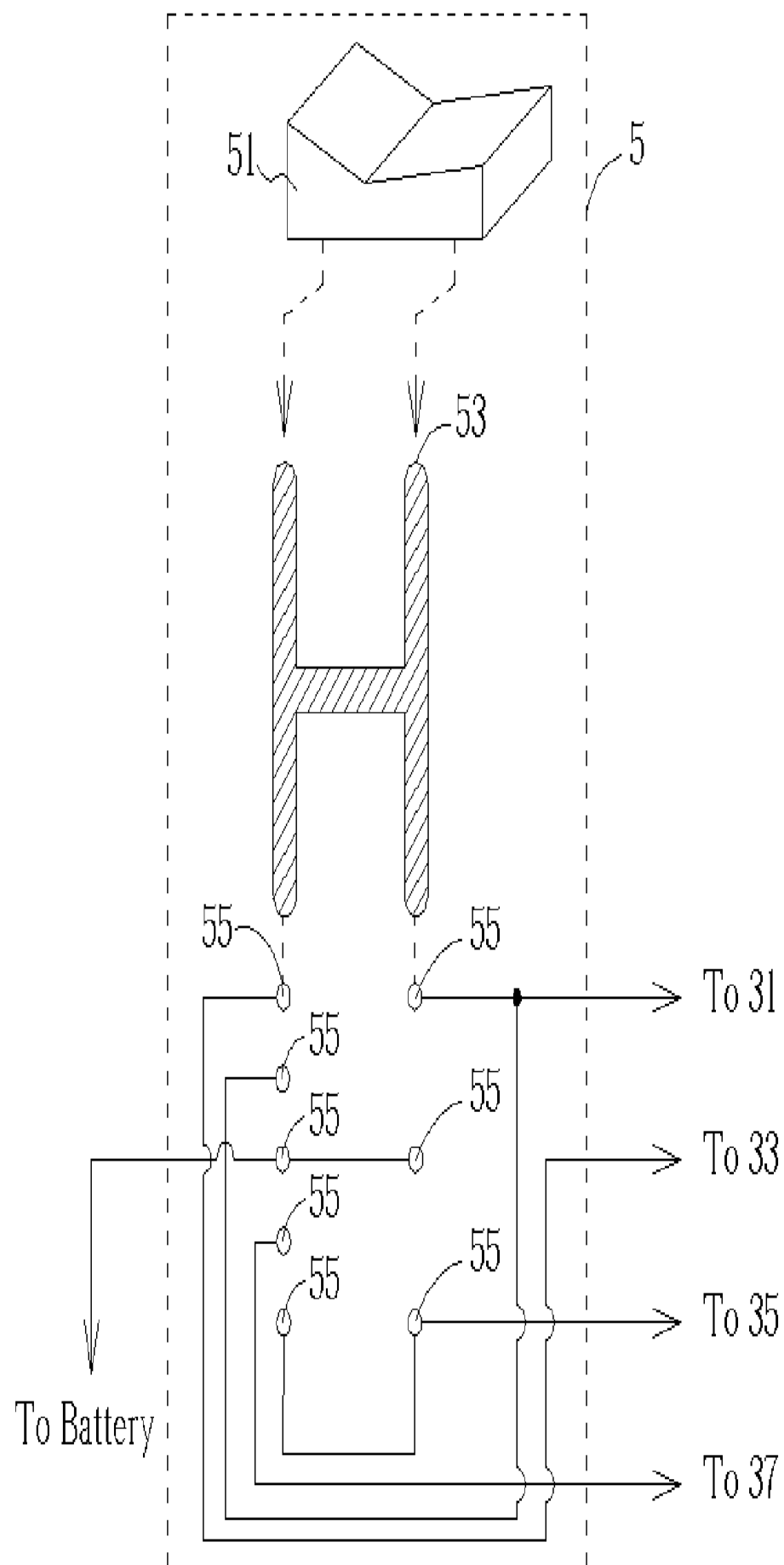


Fig. 9

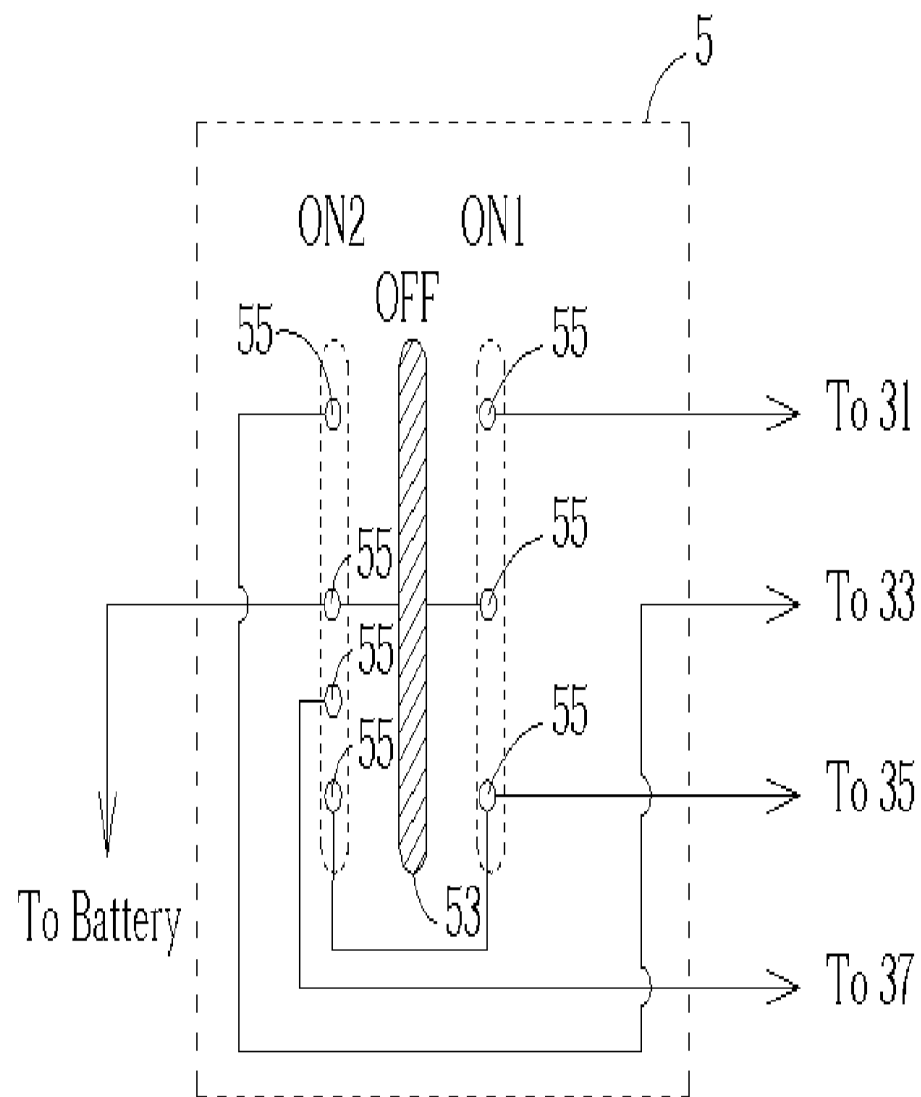


Fig. 10

Type II					
(II -1)	R <sub>M</sub>	R <sub>1</sub>	R <sub>3</sub>		Total
Resistance Ω =	4.00	4.00	1.00		0.89
Current DC I =	2.00	2.00	16.00		18.00
Voltage DC V =	8.00	8.00	16.00		16.00
Power DC W =	16.00	16.00	256.00		288.00
(II -2)	R <sub>M</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	Total
Resistance Ω' =	4.00	1.67	1.00	1.00	0.46
Current DC I' =	2.82	2.82	16.00	16.00	34.82
Voltage DC V' =	11.29	4.71	16.00	16.00	16.00
Power DC W' =	32.00	13.28	256.00	256.00	557.28
W <sub>M</sub> ' /W <sub>M</sub> =32.00/16.00=2					
W <sub>Total</sub> ' /W <sub>Total</sub> =557.28/288.00=1.94					

Fig. 11

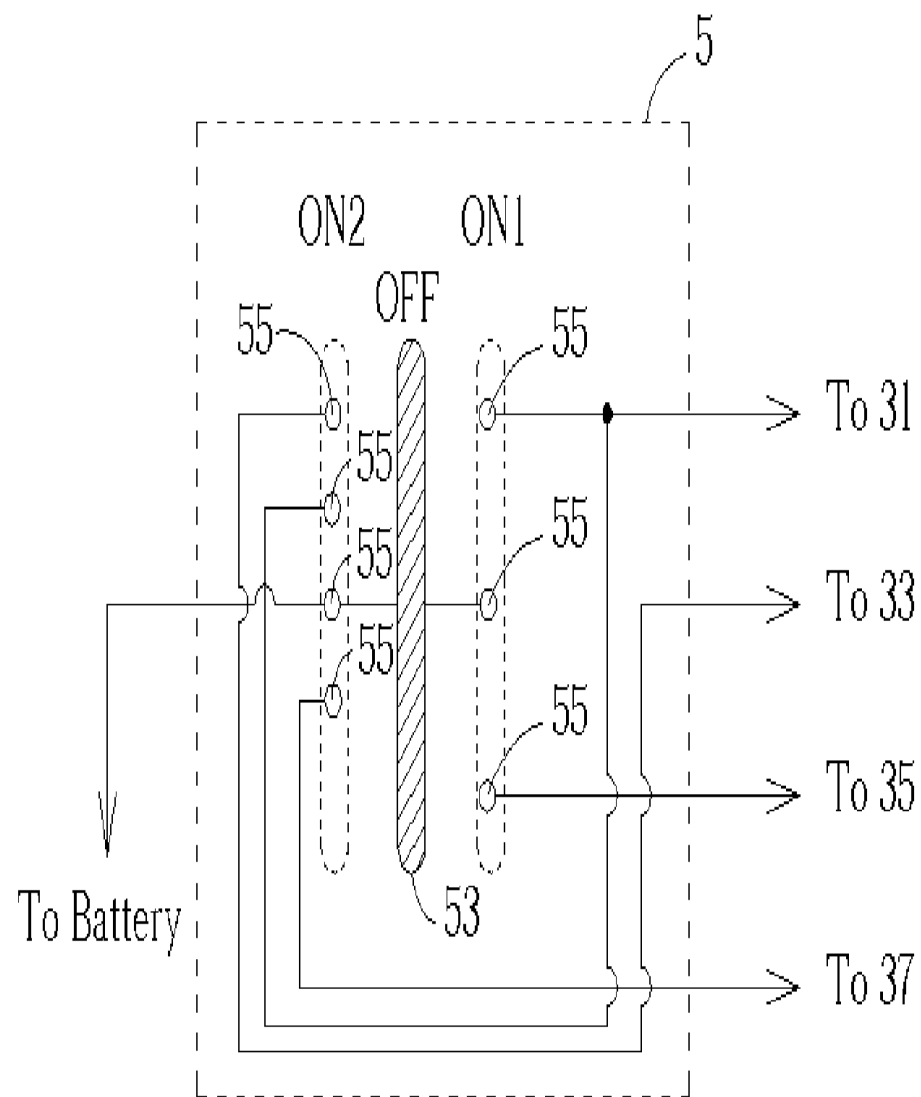


Fig. 12

Type III					
(III-1)	R <sub>M</sub>	R <sub>1</sub>		R <sub>3</sub>	Total
Resistance Ω =	4.00	4.00		1.00	0.89
Current DC I =	2.00	2.00		16.00	18.00
Voltage DC V =	8.00	8.00		16.00	16.00
Power DC W =	16.00	16.00		256.00	288.00
(III-2)	R <sub>M</sub>	R <sub>1</sub>	R <sub>2</sub>	R <sub>4</sub>	Total
Resistance Ω' =	4.00	4.00	2.86	0.50	0.46
Current DC I' =	2.82	1.18	1.64	32.00	34.82
Voltage DC V' =	11.29	4.71	4.71	16.00	16.00
Power DC W' =	32.00	5.55	7.76	512.00	557.31
W' <sub>M</sub> /W <sub>M</sub> =32.00/16.00=2					
W' <sub>Total</sub> /W <sub>Total</sub> =557.31/288.00=1.94					

Fig. 13

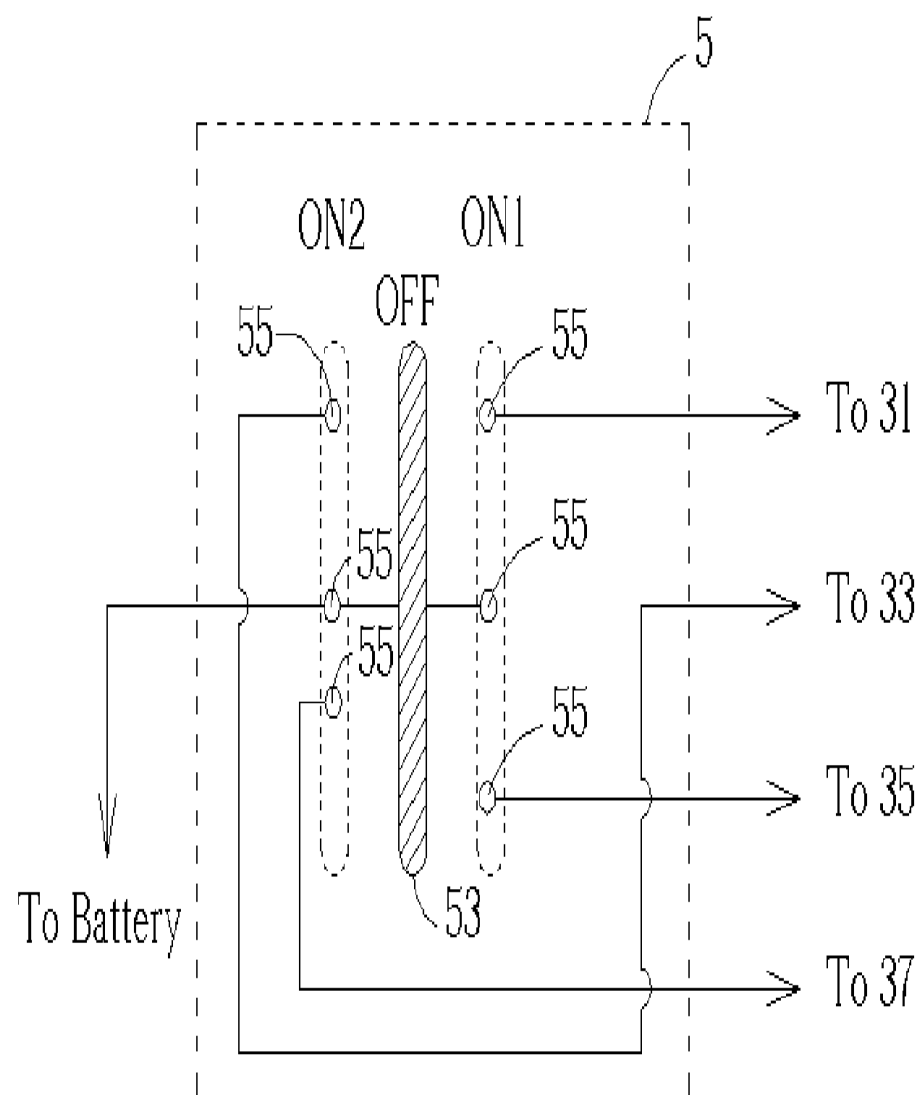


Fig. 14

Type IV				
(IV-1)	R <sub>M</sub>	R <sub>1</sub>	R <sub>3</sub>	Total
Resistance $\Omega$ =	4.00	4.00	1.00	0.89
Current DC I =	2.00	2.00	16.00	18.00
Voltage DC V =	8.00	8.00	16.00	16.00
Power DC W =	16.00	16.00	256.00	288.00
(IV-2)	R <sub>M</sub>	R <sub>2</sub>	R <sub>4</sub>	Total
Resistance $\Omega'$ =	4.00	1.67	0.50	0.46
Current DC I' =	2.82	2.82	32.00	34.82
Voltage DC V' =	11.29	4.71	16.00	16.00
Power DC W' =	32.00	13.28	512.00	557.28
$W'_M / W_M = 32.00 / 16.00 = 2$ $W'_{Total} / W_{Total} = 557.28 / 288.00 = 1.94$				

Fig. 15